Teamwork makes the dream work: Leveraging telehealth and APN/LPC alliance to mitigate anxiety for youth diagnosed on the autism spectrum

A Study By

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Introduction

In 2022 the Centers for Disease Control (CDC) reported one in 44 children is diagnosed on the autism spectrum. In their seminal work, Wolfe and Goldfried (1988) identified a key feature to this diagnosis can be anxiety. Klebanoff, Rosenau, and Wood (2019) described therapeutic alliance as, “the quintessential integrative variable” of therapy. Albaum, Tablon, Roudbarani, Weiss (2019) observed little research has been done around therapeutic alliance and mitigating anxiety for youth diagnosed on the autism spectrum (ASD). This study is designed to move the scholarly conversation forward by expanding notions of alliance to include APNs (advanced practice nurses) and LPCs (licensed professional counselors) teams in tandem with telehealth technology to mitigate anxiety in ASD youth while using a systems approach to include and simultaneously fortify caregivers.

Perhaps at its peak, Covid-19 triggered anxiety in all of us. Certainly, it necessitated a “crash course” in technology which nobody expected. We all saw the conversion to telehealth during mandatory quarantine. This necessity yielded some interesting data points. This study contains four parts: identifying the problems and solutions of telehealth; enumeration of ways to use telehealth platforms for enhanced alliance between and among stakeholders as well as specific action items professionals can immediately implement. This study also reviews study limitations, future directions and provides a summary conclusion.

1. Telehealth: identifying the problems

At the onset of our worldwide quarantine, many clinicians felt disempowered. Suddenly, many found themselves compelled to learn about telehealth technologies. Which ones are HIPAA compliant, and which ones are not? Which ones have useful features? Which ones can clients learn? How to collect the co-pay? Suddenly, the safe four walls of therapy became eight virtual walls. Caring professionals wondered, “how can we offer a box of tissues?” and, “how can we offer the therapeutic benefit of a quiet, safe, and cozy office?” and, “how can we truly connect with clients to build and maintain therapeutic alliance?

Clinicians wondered, “what of those clients on the autism spectrum?” and, “how can we offer play therapy when we are not even in the same room?” and, “how can we teach caregivers to redirect their children when we ourselves are in different towns?” and, “what if the client does not sit at the screen?” and, “what if the client elopes?” and, “what if the client grows violent with the caregiver?”

Coronavirus quarantine offered caring professionals a challenge and the chance to grow professionally while meeting clients “where they are” metaphorically, but also literally. Riosa, Khan, and Weiss (2019) as well as White, Conner, Beck, and Mazefsky (2021) observed clinicians are competent in acquiring additional training to learn new modalities and interventions as well as to repurpose existing interventions such as art therapy, music therapy, play therapy, cognitive behavioral therapy (CBT) with proper instruction. The current study posits all this while adding the specter of telehealth platforms.

Addressing the above questions when working with ASD clients sometimes meant a shared telehealth screen and an online shopping spree to equip youth and family with items for art, music, play therapies. More resourceful, clinicians saw the conversion to telehealth as a chance to truly “meet the client where they are”. Working with youth and caregivers, these clinicians looked through the computer screen and into the home. They helped families identify items already in the home.

But, what of ASD clients prone to grave social anxiety? To eloping? To violence? How could an APN or an LPC possibly evaluate a client who fled from the room during a telehealth session? How could we evaluate a client who never entered the room at all? This study seeks to provide some possible answers.

Method

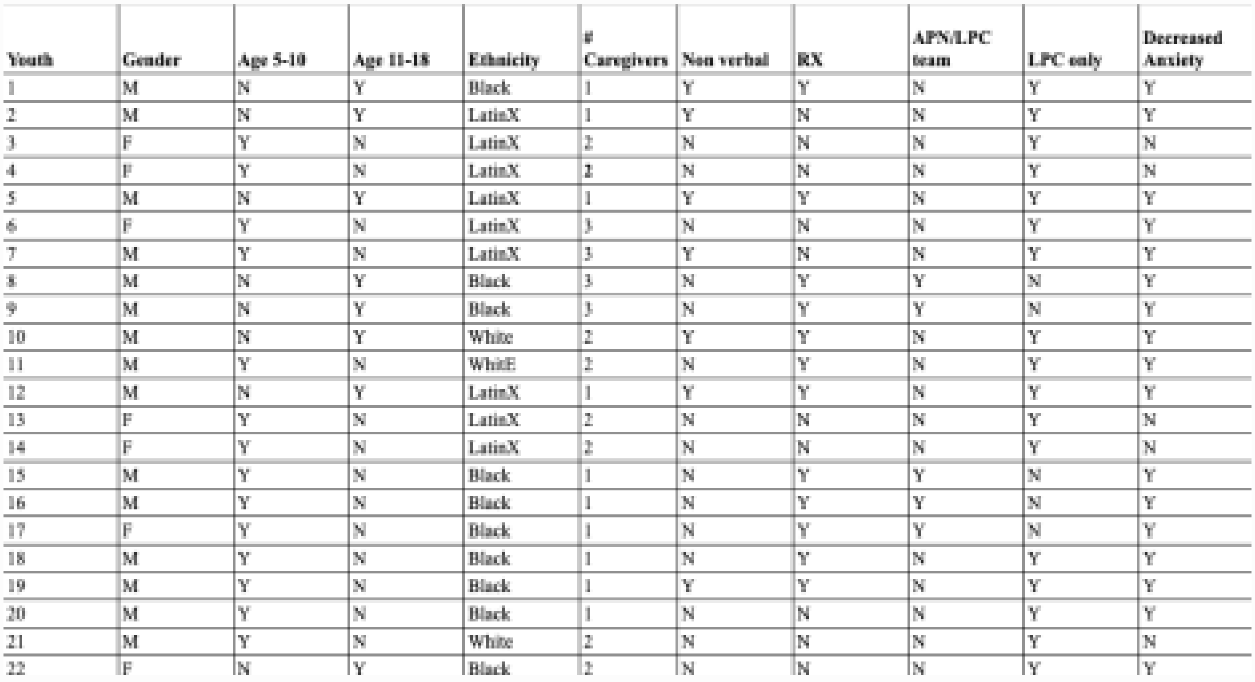
This study included 22 youth. All youth were independently diagnosed on the autism spectrum prior to this study. Over three months, youth and caregivers received one weekly hour of therapy from an LPC to mitigate anxiety. Many participating youth also had monthly APN appointments. In many cases youths received APN prescribed medication to mitigate anxiety. All treatments took place via telehealth.

The hypothesis was that youth who received telehealth in tandem with alliances between and among: youth, caregiver(s), APN/LPC would see improved ability to mitigate anxiety over a three month period. Anxiety mitigation was measured by caregiver reports on number, duration, and intensity of weekly "meltdowns". When applicable, school reports of meltdowns were included. Meltdowns are described as: destruction of property, harming self, harming others, as well as yelling/crying in anger/frustration. Initial reports of "meltdowns" ranged from 10 daily to 1 weekly at the onset of the study.

Professional APN/LPC team activities included, but were not limited to using telehealth technologies for: sharing session notes, having conversations about client progress, collaborating on written communications to schools and other members of caring teams. This study hypothesizes that the combination of technology, caring professional teams (inclusive of youth and caregiver(s) saw faster and more extensive youth ability to mitigate anxiety.

Participants

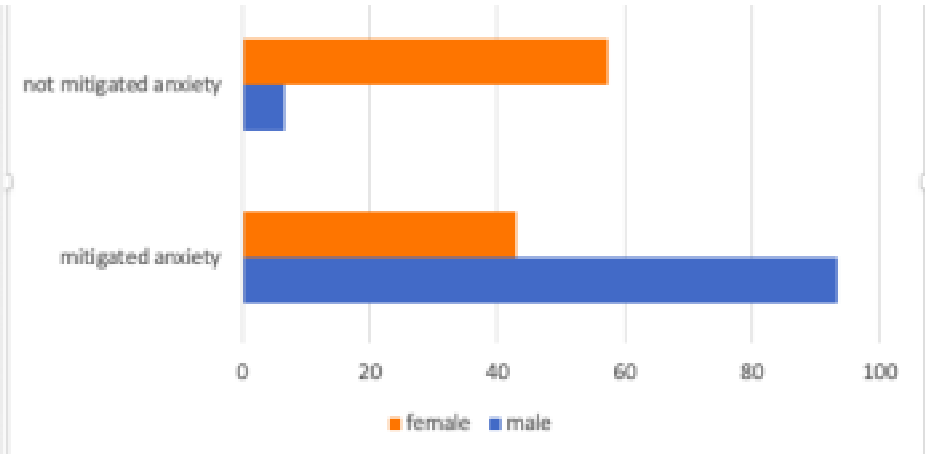
The current study examines 22 youth by: gender (male and female); age (5-10 and 11-18); ethnicity (Black, LatinX, White); number of caregivers (one, two, three); ,whether the youth were verbal/non-verbal, whether the youth had a prescription, whether there was an APN/LPC team in place, whether there was only an LPC, and whether anxiety decreased. Results are described in table one, below.



Youth	Gender	Age 5-10	Age 11-18	Ethnicity	# Caregivers	Non verbal	RX	APN/LPC team	LPC only	Decreased Anxiety
1	M	N	Y	Black	1	Y	Y	N	Y	Y
2	M	N	Y	LatinX	1	Y	N	N	Y	Y
3	F	Y	N	LatinX	2	N	N	N	Y	N
4	F	Y	N	LatinX	2	N	N	N	Y	N
5	M	N	Y	LatinX	1	Y	Y	N	Y	Y
6	F	Y	N	LatinX	3	N	N	N	Y	Y
7	M	Y	N	LatinX	3	Y	N	N	Y	Y
8	M	N	Y	Black	3	N	Y	Y	N	Y
9	M	N	Y	Black	3	N	Y	Y	N	Y
10	M	N	Y	White	2	Y	Y	N	Y	Y
11	M	Y	N	WhitE	2	N	Y	N	Y	Y
12	M	N	Y	LatinX	1	Y	Y	N	Y	Y
13	F	Y	N	LatinX	2	N	N	N	Y	N
14	F	Y	N	LatinX	2	N	N	N	Y	N
15	M	Y	N	Black	1	N	Y	Y	N	Y
16	M	Y	N	Black	1	N	Y	Y	N	Y
17	F	Y	N	Black	1	N	Y	Y	N	Y
18	M	Y	N	Black	1	N	Y	N	Y	Y
19	M	Y	N	Black	1	Y	Y	N	Y	Y
20	M	Y	N	Black	1	N	N	N	Y	Y
21	M	Y	N	White	2	N	N	N	Y	N
22	F	N	Y	Black	2	N	N	N	Y	Y

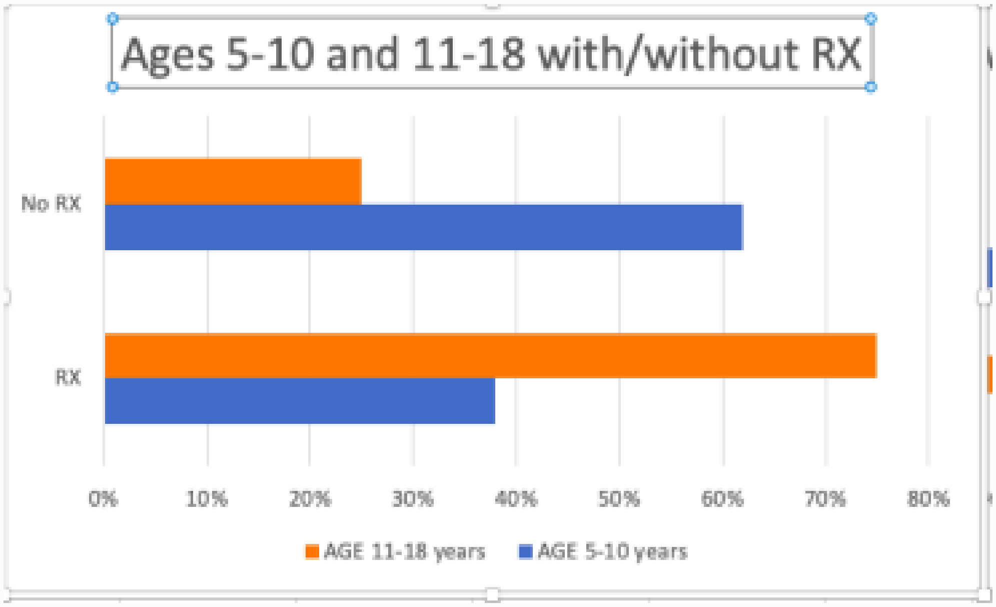
2. Identifying the solutions

Results: anxiety mitigation by gender



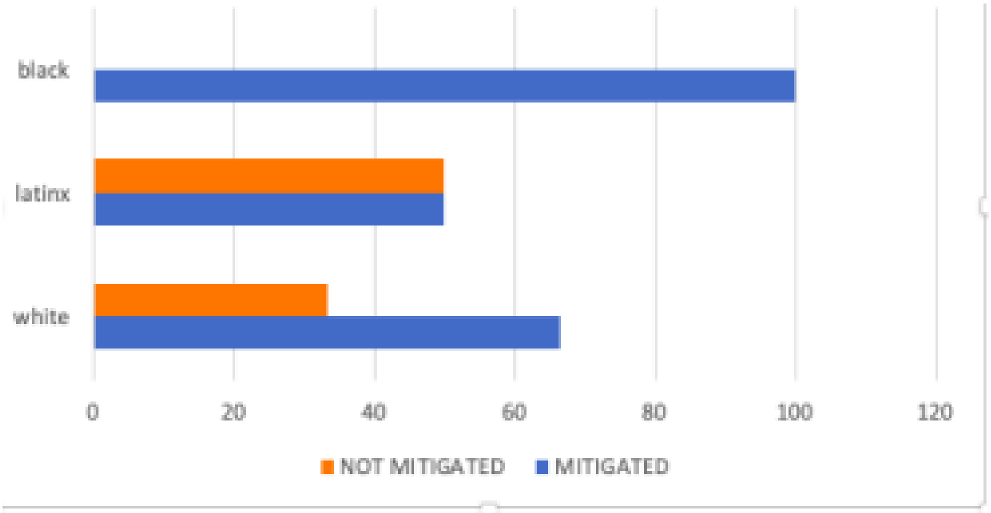
Examining figure one above describes anxiety mitigation in relation to gender. Results may be skewed by the ceiling effect described by Albaum, et al., (2019). For example, of the 22 youth, two female youth did not complete treatment. They were siblings and their mother was a registered nurse who was bound to work extra shifts at the height of the Covid pandemic. This may partially explain why males in the study fared better than females.

Results: anxiety mitigation by age



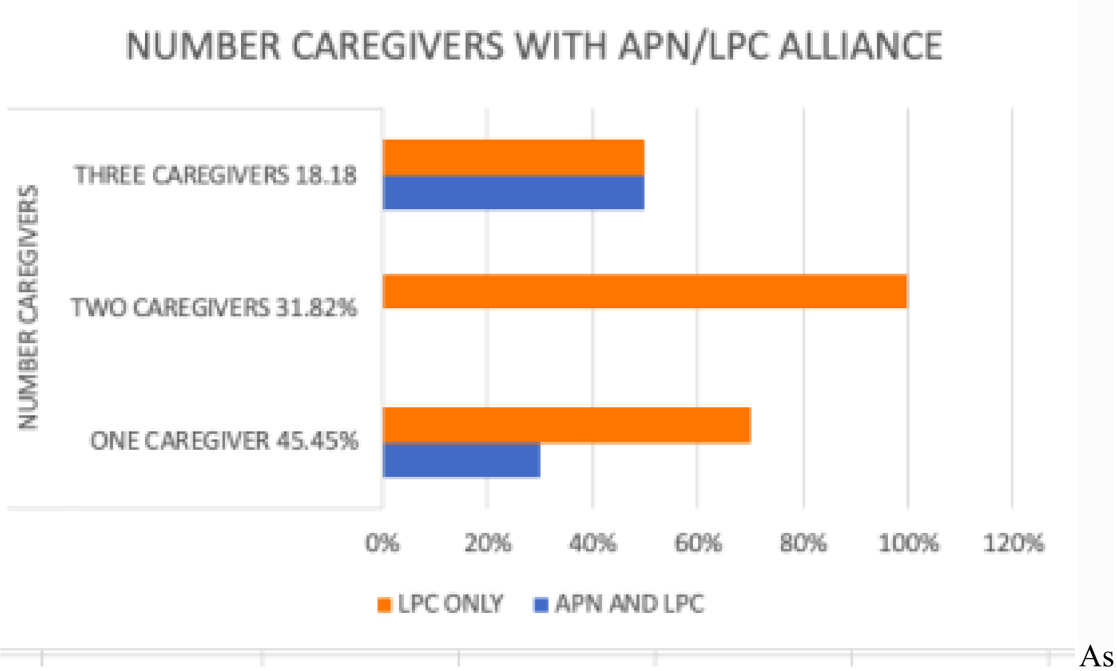
Viewing figure three above, the study included 68% male and 32% female participants. Of the 22 youth, 64% were aged 5-10 and 34% were aged 11-18. While 54% took medication to mitigate anxiety, fully 41% had a caring team where the prescribing clinician (APN) and the therapeutic clinician (LPC) participated with one another, with the youth, and with caregiver(s).

Results: anxiety mitigation by ethnicity



Interestingly, as noted above in figure four above, Black youth saw 100% success rate, LatinX saw 50% success rate, and White youth saw a success rate of almost 40% of successfully mitigated anxiety. The higher success of Black youth may perhaps be attributed to the larger number of caregivers overall, or it can perhaps be attributed to cultural differences. In their seminal work Sue and Sue (2008) observed that often Black and LatinX families can have multiple generations in the home, and can view the world through a collective, as opposed to an individualistic, lens. This facet of Black culture can perhaps provide a more comprehensive social support network which can be conducive to mitigating anxiety, particularly when a youth is diagnosed on the autism spectrum.

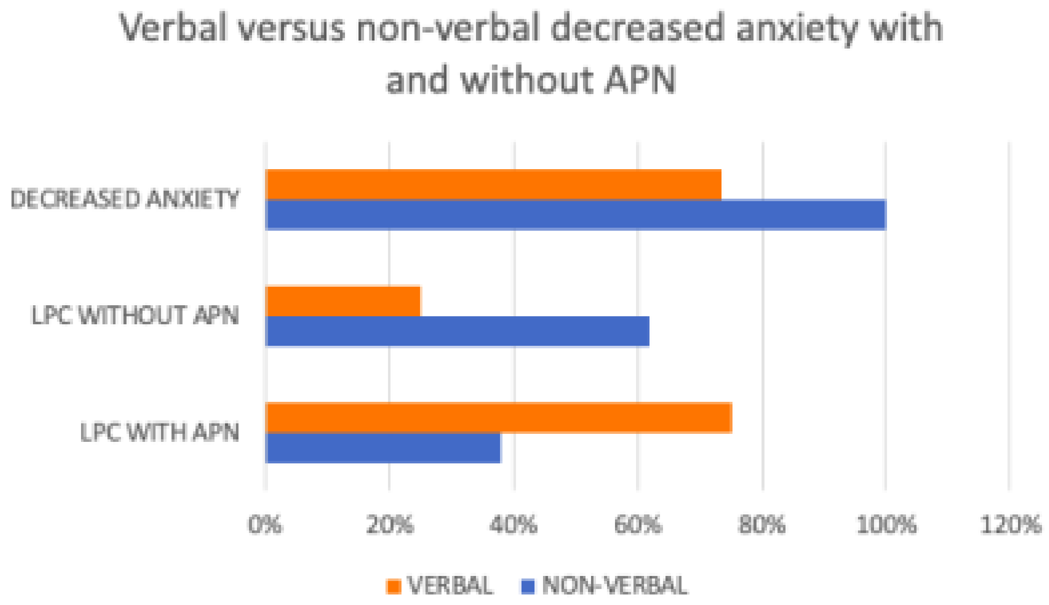
Results: anxiety mitigation by number of caregivers



As noted in table five above, three caregiver households comprised 18.18% of the study. Three caregiver households choose APN/LPC teams 100% of the time. It can be noted these households were all multigenerational households where the husband and wife had one or more parents sharing the home. Two caregiver households comprised 31.82% of the study and in 100% of these cases, two caregiver households declined APN services. Finally, one caregiver household comprised 45.45% of the study. In roughly 30% of these households, caregivers chose to have APN/LPC teams.

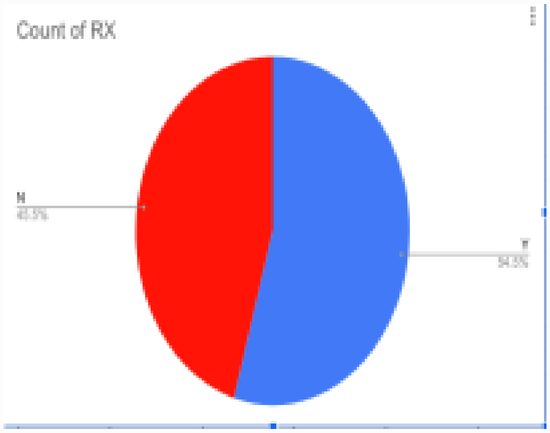
Alliance between both caring professionals in tandem with shared alliances with youth and caregivers can be a boon to all involved. For example, an ASD diagnosis can feel catastrophic to mothers and fathers, grandparents, and indeed to all family members and friends. For caregivers, just knowing a caring professional is within reach can provide great peace of mind. Knowing both an APN and an LPC are available, while also knowing these two professionals know one another and are corroborating for the betterment of the youth can serve as a great comfort to worried nerves. When caregivers feel supported and at ease, ASD youth can experience mitigated anxiety, and positive feelings of ease.

Results: anxiety mitigation by verbal/non-verbal



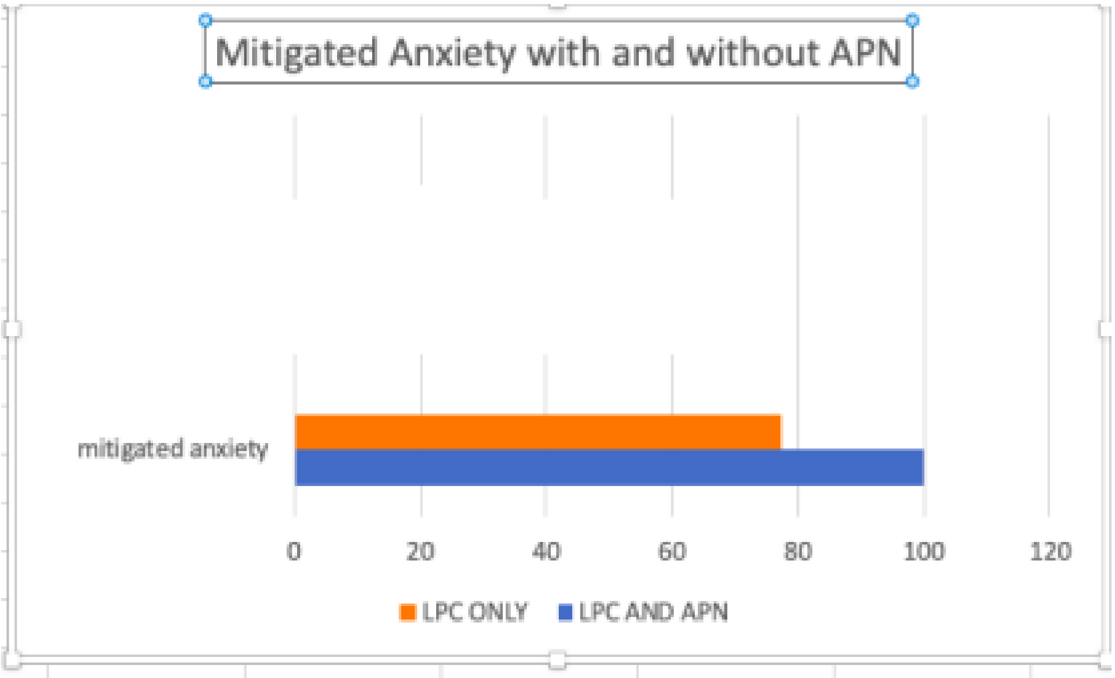
As noted in figure six above, almost 80% of all youth and 100% of non-verbal youth in this study saw decreased anxiety. It is interesting to note non-verbal youth fared better without APN and psychopharmaceutical interventions. It is also interesting to note that verbal youth benefited from APN/LPC team and psychopharmaceutical interventions.

Results: anxiety mitigation by prescription



As described in figure seven, above, of the 22 youth who participated, 54.5% had a prescription. In these cases 100% opted for APN/LPC teams. It is instructive to know 75% of youth ages 11-18 had a prescription whereas only38% of those aged 5-10 had a prescription. In other words, the majority of those who had a prescription were over age 11.

Results: anxiety mitigation by LPC/APN alliance



Though it is a well-known and lamentable norm that many LPCs do not work with the benefit of a professional alliance with APNs, table seven above observes fully 100% of youth who used APN/LPC teams realized mitigated anxiety. Rilveria (2022) observed the importance of sharing knowledge amongst professionals and caregivers and youth. The truth is many ASD clients (and their caregiver(s)) benefit from just such a caring team. [3] Technology Francese, Risi, Tortora, and Di Salle (2021) argued in favor of technology paired with alliances by performing a study using a multimedia device called Thea and one ABA (applied behavior analyst). The current study explores the same functionality as Thea, but using readily available HIPAA compliant telehealth platforms which are easy to use for both clients and caregivers.

3. Using telehealth for enhanced stakeholder alliance, or LPC techniques

In addition to LPC interventions such as play, art, and music therapy, and CBT to mitigate anxiety, LPC provided what Glasser and Easley (2011) coined as “the nurtured heart approach” training for caregiver(s).Caregiver(s) had the chance to learn and practice such techniques such as “video game parenting” as well as redirecting. Caregiver(s) also got the chance to learn and practice Gray’s (2015) social stories. Moreover, at APN request, LPCs took time to describe to caregivers how psychopharmaceutical interventions work, benefits, timetable to expect benefits, side effects, and LPCs explained to caregiver(s) the grave importance of medication compliance. In all interactions, LPCs highly encouraged caregiver(s) to ask questions.

In alliances where caregivers and youths had APN/LPC teams collaborating in treatment, these professionals communicated regularly with caregiver(s), clients, and with each other. This approach served to effectively propel youth toward mitigating their own anxiety during, and more importantly, between appointments.

4. Discussion: Telehealth platform as therapeutic intervention, or action items

A key aspect of this study is using telehealth as a treatment delivery modality. Telehealth functionality itself served as a therapeutic intervention in six ways. First, as noted by Brewe, Mazefsky and White (2021) ASD clients can often feel challenged maintaining eye contact. [2] Using telehealth, obviates the need for traditional eye contact. The clinician can direct the client to look at the device, though in 9 out of 10 clients, this is unnecessary. The client can look at the device, and in so doing the client can practice eye contact in a safe environment. This sudden success can build a client’s confidence. Improved confidence can assuage anxiety.

Second, though it can seem like common sense, ASD youth can build attention span as well as confidence by using telehealth functions like screen control. For example, youthful clients can have the chance to show off technological prowess. Youthful ASD clients can take control of the zoom meeting. Clients can have the chance to share images, videos, web links to communicate, whether the client is verbal or not. In this way, the clinician can “meet the clients where they are" in a literal and metaphoric sense.

Maenner, Shaw, Bakian et al. (2021) noted ASD youth can be reticent socially. If the client is reluctant to participate in the appointment, the caregiver can literally “meet the client where they are” by bringing the device to the youth. Moreover, clinicians can have the opportunity to peer into the client's home. This knowledge can be instrumental in mitigating anxiety. The client can show the clinician his/her most prized belongings, the color of his/her room, etc. In this way, the clinician can connect with the client in a way that is not possible when the client comes to the office. Clinicians can obtain information clients (and often caregiver(s) might not ever disclose information during an office visit. For example, during this study, one client took this opportunity to screen share his prodigious colored pencil artwork, and indeed to show the clinician what he was currently working on.

Fourth, Brewe, et al., (2021) noted therapeutic alliance can be more difficult to build in clients with more pronounced ASD symptoms and indeed in clients with depression. This crucial information cannot be overlooked. Turning an eye toward client proclivities can be instrumental in growing alliances and mitigating client anxiety. For example, clients on the spectrum can be exceptionally good at performing multiple tasks simultaneously. Using telehealth platforms clients can simultaneously: speak, read their words as closed captions, and indeed clients can text the clinician all during the session. This functionality is certainly not possible in a traditional therapeutic setting.

Fifth, telehealth can enable the client to play videos of music (or indeed to share video games) with the clinician. In fact, clients who are receptive to music can often perform well in a virtual environment when music therapy or just background music occurs during a session and the client is empowered to stop, start, or change the music, at will.

Sixth, ASD clients can be sensitive to sight, smell, touch, taste, and sound. Clients who have telehealth need not contend with a clinician's unintentionally hard office chair, or the scratchy sound of the door opening, etc. The client can benefit from feeling comfortable from a sensory perspective because sensory problems are eliminated during telehealth visits.

In summary, the ASD client can feel more at ease via telehealth. The youth can have myriad ways to communicate whether verbal or non-verbal. Caregiver(s) can learn techniques to manage youth behavior during and indeed between sessions. The prescribing APN can have much additional extra information from the LPC. All parties can share information via multiple avenues such as video conversations, sharing documents in real time, working on documents in real time. Moreover, clinicians can generate a session transcript for caregiver future reference. While many telehealth platforms do not automatically translate to other languages, clinicians can easily run the transcript through Google translate.

5. Study limitations

The scope of his study did not include LPC therapy goals such as; social/communication skills; non-verbal communication skills; modulating tone of voice; growing focus; life skills such as choosing seasonally appropriate clothing, learning to clean the home, making meals, etc. Moreover, this study did not include treatment of depression, seizures, obsessive compulsive disorder (OCD) and other very worthy APN treatment goals. The current study did not extensively include other crucial team members such as educators; other school workers, after-care workers, speech, or occupational therapists. This study included only ASD diagnosed youth--there was no control group containing typically developed youth.

6. Future Directions

This study can certainly be built upon to explore ways caring professionals forming teams can provide each a richer understanding of shared clients. Future studies can examine goals such as exploring the benefits of a caring team using telehealth to move toward LPC and APN therapy goals, as noted by Francese, et al., (2021). above. As well, once anxiety is mitigated, ASD youth can have a better chance to move toward the aforementioned goals with perhaps greater success. These goals can be more attainable using tandem telehealth and caring teams.

7. Conclusion

ASD youth can be far more amenable to the hard work of therapy when that therapy is not preceded for youth and caregiver alike by a harrowing and anxiety-provoking journey. When there is no waiting room experience replete with strange smells, sights, sounds that might trigger youth long before the appointment, both youth and caregiver can enter the session with greater tranquility (and some might argue, less exhaustion). In other words, telehealth service delivery in tandem with APN/LPC alliance can serve as a model for improved treatment delivery. The improvements this study described can result in improved, and indeed expedited positive results.

In fact, in the present day, clients have the option to return to in person office visits. Still, many clients and caregivers continue to prefer telehealth. For that reason this study can offer specific, measurable, attainable and most importantly reproducible suggestions designed to provide superior results. Just as we ask our youthful clients to stretch their ability to cope with people, places and things that can cause anxiety, so we have, by parallel process, sought to do so ourselves by teaming up and using telehealth. In this way we have sought to continue providing the best we have to offer during the difficult ordeal of Coronavirus quarantine. By exploring the functionality of telehealth and identifying ways to use it to “meet the client where they are ".

Beyond the scope of this study, everyone reading this article has had the chance to be heroic. All of us found, and took, the chance to grow. While the greatest scientific advancements often come during times of great societal duress such as war and, in the case of this study, pandemic, there is still much we can learn from our clients by meeting them where they are.

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